

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (Currently amended): A method of applying electromagnetic energy to a target, comprising:

moving a coil relative to the target; and
applying current to the coil ~~[[at]]~~ from a plurality of locations ~~in order~~ to direct magnetic fields to the target ~~and magnetically stimulate the target, wherein the current is applied to the coil at a sufficiently rapid frequency prevent re-polarization of the target as the coil is moved, such that the magnetic stimulation of the target field energy over time is higher at the target than at a region interposed between the target and the coil areas around the target.~~

Claim 2 (cancelled)

Claim 3 (original): The method of claim 1, further comprising adjusting the current to the coil at each location so that the magnetic field at the target is constant.

Claim 4 (original): The method of claim 3, wherein the current is adjusted by the inverse of the square of the distance between the coil and the target.

Claim 5 (Currently amended): The method of claim 1, further comprising selectively not applying current to the coil at a location where directing a magnetic field at the target would expose an area interposed between the target and the coil to undesirable magnetic field energy.

Claim 6 (original): The method of claim 1, further comprising selecting a duration for applying the current depending on a location of the coil.

Claim 7 (original): The method of claim 1, further comprising selecting an inter-pulse interval for applying the current depending on a location of the coil.

Claim 8 (original): The method of claim 1, further comprising selecting an intra-pulse frequency for applying the current depending on a location of the coil.

Claim 9 (original): The method of claim 1, further comprising selecting a speed of movement of the coil.

Claim 10 (original): The method of claim 1, further comprising a plurality of coils.

Claim 11 (original): The method of claim 1, wherein the coil is a transcranial magnetic stimulation (TMS) coil.

Claim 12 (Currently amended): A method of applying electromagnetic energy to a target, comprising:

magnetically stimulating a neuronal target from a first location by applying current to a coil;

rotating a moving the coil to a second location relative to the target;

continuing the magnetic stimulation of the neuronal target from the second location by applying current to the coil, wherein the adjusting the position of the coil so that magnetic stimulation is field energy from the coil will be greater at the target than the magnetic stimulation field energy at areas at a region interposed between near the target at the same distance to the coil; and

applying wherein the current applied to the coil at a plurality of the first and second locations in order to direct magnetic fields to the target such that the magnetic field energy over time is higher at the target than areas around the target is applied at a frequency sufficient to prevent re-polarization of the target as the coil is moved.

Claim 13 (original): The method of claim 12, further comprising adjusting the current to the coil at each location so that the magnetic field at the target is constant.

Claim 14 (original): The method of claim 13, wherein the current is adjusted by the inverse of the square of the distance between the coil and the target.

Claim 15 (Currently amended): The method of claim 12, further comprising selectively not applying current to the coil at a location where directing a magnetic field at the target would expose an area interposed between the target and the coil to undesirable magnetic field energy.

Claim 16(original): The method of claim 12, further comprising selecting a duration for applying the current depending on a location of the coil.

Claim 17 (original): The method of claim 12, further comprising selecting an inter-pulse interval for applying the current depending on a location of the coil.

Claim 18 (original): The method of claim 12, further comprising selecting an intra-pulse frequency for applying the current depending on a location of the coil.

Claim 19 (original): The method of claim 12, further comprising selecting a speed of movement of the coil.

Claim 20 (original): The method of claim 12, further comprising a plurality of coils.

Claim 21 (original): The method of claim 12, wherein the coil is a transcranial magnetic stimulation (TMS) coil.

Claim 22 (cancelled)

Claim 23 (cancelled)

Claim 24 (cancelled)

Claim 25 (cancelled)

Claim 26 (cancelled)

Claim 27 (Currently amended): A method of applying electromagnetic energy to a target brain region, comprising:
magnetically stimulating a target brain region by applying current to a coil from a first location;

moving ~~[[a]] the~~ coil relative to the target brain region; and

continuing to magnetically stimulate the target brain region by applying current to the coil
when the coil is at a second location ~~plurality of locations in order~~ to direct magnetic fields to the target brain region, wherein the magnetic stimulation is applied at a frequency sufficient to prevent re-polarization of the target brain region as the coil is moved, such that the ~~neural~~ magnetic stimulation over time at the target brain region sums and is higher at the target brain region than at brain regions interposed between the target brain region and the coil areas around the target.

Claim 28 (Cancelled)

Claim 29 (New): The method of claim 28, wherein the step of magnetically stimulating a brain region comprises magnetically stimulating a deep brain region.

Claim 30 (New): The method of claim 29, wherein the step of magnetically stimulating a deep brain region comprises magnetically stimulating a sub-cortical brain region.

Claim 31 (New): The method of claim 1, further comprising the step of aiming the coil at the target, wherein the target is a sub-cortical brain region.

Claim 32 (New): The method of claim 12, further comprising the step of aiming the coil at the target, wherein the target is a sub-cortical brain region.